

ARM Manus Research Station

Site Visit 0511M Report

Visit Duration: 08 November to 21 November 2005

Manus Island, Papua New Guinea

SV-0511M

Site: Manus	Proposed Dates on Site: 8 - 21 November 2005
Team Members: Troy Culkan Rodney Evans Karl Geary (AE Smith)	Ship or hand carry prior to SV: TSI TT8 controller board, TSI camera (hand-carry), MFRSR sensor head and controller board, aspirator fan for Suominet, H2GEN gas tester sensor cell, H2GEN gas tester battery, Velcro strap sonde retainer, MPL shutter timer batteries, 2 Sun servers Safety: Major Hazards: Caustic chemicals (KOH), Explosive gas (H2), AC electricity Hazard Controls: BOM Electrolyser Handbook, BM Electrolyzer Operations/Maintenance Training, ASNZS 4836/2001-Safe Working on LV Electrical Installations, 2-man rule Reminder: When replacing items (e.g., desiccant, filters, etc.), record and report the quantity of spares left on site.

Site Tasks

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Assoc Hazards-Controls For each priority item insert new line(row) for each date/time entry
1	TSI			Replace camera
		13-Nov	2	Camera replaced, request mentor assistance in completeing setup
		16-Nov	3	Worked with Chuck Long to setup new camera, more work required tomorrow
		17-Nov	3	Original TSI camera reinstalled
		18-Nov	1	Aligned camera as per Chuck Longs instruction
2	TSI			Install TT8 controller board
		13-Nov	2	TT8 controller board replaced
3	MMCR			Replace TWTA, test it, and restore to service
		10-Nov	4	TWTA installed and set to work. Kevin Widener informed and requested to remotely check system and verify operational.
		11-Nov	2	Performed system checks as requested by mentor
4	DS			Install 2 Sun servers with SPARC processors (as per ECO-00489)
		14-Nov	1	Checked with Dick Pearse shipment was off loaded at Lae next possible delivery date Wednesday. Tax exemption documentation not complete.
		16-Nov	1	Shipment did not arrive today maybe Friday
		18-Nov	1	Shipment did not arrive today
5	DS			Install RADMIN on all instrument PCs
		10-Nov	1	Radmin installed
6	HVAC			A/C maintenance - AE Smith
		16-Nov	4	AE Smith tech received tools that were off loaded in Lae and commenced A/C maintenance
		17-18/11/2005	8	A/C maintenance - complete

7	HVAC			Repair faulty units on site (1 in D-Van; 1 in E-Van; I-Van units need recharge; Y-Van window unit needs filter cleaning) - Karl Geary (AE Smith), 14Nov - ?
		15-Nov	8	I-Van #1 outdoor unit replaced, E-van #2 outdoor unit, D-Van #1 outdoor unit replaced with I-Van #3 outdoor unit. I -van #3 AC unit is no longer operational. Nil spare outdoor units on site awaiting receipt of Daikin units.
8	HOGEN			Repair water filtration system
		10-Nov	1	Nil water in on site storage tank, perhaps today's rain will help. There was 36mm of rain today however the guttering system was unable to direct water flow to storage tanks, we have made temporary repairs to the water catchment system
		11-Nov	4	Plenty of Rain today storage tanks now at 50 percent capacity, commenced fault finding on water treatment plant no definitive result as yet.
		12-Nov	4	Water filtration system repaired, replaced faulty pressure relief valve (V6). Hogen operational and under test.
		16-Nov	3	Repair minor gas leak in gas line to RBL
		19-Nov	1	Config checked
9	H2GEN			Routine maintenance
		12-Nov	3	H2Gen (electrolyser) maintenance commenced
		13-Nov	4	H2gen maintenance complete
10	H2GEN			Change out gas tester sensor cell
		16-Nov	1	Checked change out not required
11	H2GEN			Change out gas tester battery
		12-Nov		No spare batteries on site
12	H2GEN			Change out Velcro strap sonde retainer
		19-Nov	1	Strap changed
13	OTHER			Inspect all site cables with inspection procedure
		17-Nov	2	Inspection complete
14	CEIL			Change out battery
		12-Nov		No spare battery on site
15	GENSET			Routine maintenance - Hastings Deering
		18-Nov	1	Tech may arrive Sunday, he is wait listed for flight
16	GENSET			Change out Racor fuel filter and fuel tank gauge - Hastings Deering
		11-Nov	2	Genset fuel filters replaced
17	GPS SUOMI			Change out aspirator fan
		11-Nov		Task cancelled
18	IRT			Change out SKYRAD IRT gold mirror
		15-Nov	0.5	Skyrad mirror changed out at 10:45 local time
19	MMCR			Change out antenna heater filter and TWTA desiccant
		13-Nov	1	Filter and desiccant changed
20	MPL			Change out shutter timer batteries
		10-Nov	1	Timer batteries replaced, time checked for shutter operation and adjusted. Clock was 5 min out, increased shutter closure time to 40 min.
21	CAL			Record configurations Sky, Gnd, Met Loggers before and after cals
		13-Nov	1	Config files recorded and sent to Bill Porch
22	CAL			Record configurations BBSS, VCEIL
		19-Nov	1	Configs available by Radmin

23	CAL			Calibration/comparison SKYRAD radiometers
		10-Nov	2	Preparations made to place comparison instruments on stand
		11-Nov	2	Instruments placed on stand however inclement weather will make data marginal for comparison purposes.
		13-Nov	1	Data sent to Bill Porch
		14-Nov	1	Data sent to Bill Porch
		15-Nov	2	Instruments replaced
24	CAL			Calibration/comparison GNDRAD radiometers
		12-Nov	1	GNDRAD radiometers inverted at 22:30 11 Nov utc
		15-Nov	1	Instruments replaced
		17-Nov	1	Gnadrad instruments set to normal at 00:30 17 Nov utc
25	SMET			Calibration/comparison smet instruments and loggers
		14-Nov	3	SMET calibration comparison complete
26	IRT			Calibration/comparison GNDRAD IRT
		15-Nov	1	GNDrad comparison complete
27	IRT			Calibration/comparison SKYRAD IRT
		15-Nov	1	SKYRAD comparison complete
		18-Nov	3	Fault finding on Skyrad IRT problem
		19-Nov	2	Confirmed IRT faulty
28	CAL			Send Configuration, Cal, replacement records or put on FTP site
		17-Nov	1	Config,cal and replacement files sent
29	CAL			Complete audit-out after instruments replaced
30	BBSS			Update configuration of DigiCORA as per Barry Lesht and train observers to include whether or not the RS-92 sonde being launched used an alkaline battery on launch form they fill out
		10-Nov	1	DigiCORA configuration updated.
		11-Nov	1	Nauru DigiCORA update completed at 02:10 11 Nov utc
		19-Nov	1	Digicora sysgen sent to Bill Porch
31	OTHER			Fill out Maintenance Checklist
		18-Nov	3	In progress
		20-Nov	4	Completed maintenance check list
32	OTHER			Observer laptop maintenance
		16-Nov		Observers have a computer , no laptop
33	OTHER			Check functionality of Observer e-mail
		9-Nov	1	Ethernet connection was disabled now enabled, email now functional
34	SHIPPING			List items to be shipped following visit
				Calogger and equipment to Darwin
				Radiometers to SGP
35	FUTURE NEEDS			List items needed for future visits (spares, etc.)
36	MWR			Replace Teflon window
		14-Nov	2	MWR teflon window replaced